

## **ABSTRACT OF MY STUDY**

### **INTRODUCTION**

Diabetes is a complex chronic medical conditions which requires a high degree of patient self-management within a supportive social network to ensure optimal outcomes. Psychiatric illness can affect patients' self-care behaviors and their abilities to interact with others. Psychiatric illnesses, such as depression, may lead to neurohormonal changes such as changes in the hypothalamic–pituitary axis, which may adversely affect glucose control.

### **AIM OF THE STUDY**

To assess the frequency and type of psychiatric morbidity in patients with Diabetes mellitus and to understand the relationship with stressors, Sociodemographic variables, Quality of life and Disease related variables .

### **OBJECTIVES:**

1. To study the prevalence of Psychiatric morbidities in patients of Diabetes mellitus.
2. To assess the relationship of Psychiatric morbidity and psychosocial stressors.
3. To know the relationship between Psychiatric morbidity and Quality of Life .
4. To correlate illness related variables like duration of illness and disease severity with Psychiatric morbidity.

## **METHODOLOGY:**

A sample of 52 consecutive patients with an established diagnosis of Diabetes mellitus, attending the diabetology OP as well as Inpatients were selected for the study.

## **OPERATIONAL DESIGN:**

- 1.The study was conducted at Government Rajaji Hospital, Madurai, a tertiary care centre for 2 months.
- 2.The study was approved by Institutional Ethical Committee, Government Rajaji Hospital, Madurai.
- 3.The study is designed as a cross-sectional study.
- 4.The sample was chosen from patients attending Diabetology OP as well as those who were admitted in Medical ward for investigation or therapeutic purposes.
- 5.Every consecutive patient attending the Diabetology department were selected.
- 6.The cases who met the criteria for Diabetes according to American Diabetes Association guidelines 2018 and who had been diagnosed by Senior Diabetologist were chosen and subsequently assessed in Psychiatry Department under the supervision of Senior Psychiatrist.

7.The subjects were explained about the nature of the study and informed consent was obtained.

8.Likewise 52 consecutive patients were assessed.

### **STATISTICAL DESIGN:**

Statistical design was formulated using the data collected as above, for each of the scales and socio-demographic variables. Statistical analysis was done using SPSS(Statistical Package for Social Studies) version 17.0. The central values and dispersion were calculated. In comparison of the data for categorical variables chi-square and for numerical variables student t test were used. For multiple comparisons of more than two numerical variables, ANOVA and Scheffe post hoc tests were used. Correlation among variables was studied using Pearson's correlation coefficient. Then all variables were subjected to Multiple linear regression, with Quality of Life as the dependent Variable.

### **TOOLS USED:**

1. Proforma
2. Kuppusamy rating scale for socioeconomic status
3. MINI International Neuropsychiatric Interview
4. Hospital Anxiety and Depression Scale
5. Presumptive Stressful Life Events Scale
6. The World Health Organisation Quality of Life (WHOQOL- BREF)

## **DISCUSSION**

This study was done to assess the prevalence of psychiatric morbidity and the types of Psychiatric comorbidities in patients with Diabetes mellitus. The stressful life events experienced by the patients and their association with psychiatric comorbidity was also assessed. Among the patients in the sample, the age distribution was, 26.9% of patients below 34 years, 48.1% were between the age of 35 to 54 years, 25.1% belonged to the age group of above 55 years. Among the cases 65.4% of the population were males and 34.6% were females. A majority of the patients (86.5 %) were married and 13.5% of the patients were unmarried.

On analyzing the socio economic status of the patients, a majority of the patients(69.2%) belonged to Lower Upper Socioeconomic status, 23.1% belonged to Middle socioeconomic status and an equal percentage (3.8%) belonged to Upper middle and Lower socioeconomic status. The duration of illness of the sample population is as follows – 51.9% between 6 to 12 years, 32.7%, less than 5 years and 15.4% above 13 years.

In our study, we found that, among the 52 Diabetes mellitus patients, 25 patients were suffering from psychiatric comorbidity, amounting to a proportion of 48.1

In our study, the sample Population was divided into three age groups of less than 34 years, 35 to 54 years, and a third group of above 55 years. The HADS- A score, HADS-D score and Presumptive Stressful Life Events number and score were assessed in all the three groups.

The Quality of Life was assessed in four domains, namely Physical domain, Psychological domain, Social Relationship domain and Environmental domain. The total score on WHO QOL was then assessed. Mean scores were calculated for all three groups. In our study, we tried to find the differences in the Hospital Anxiety Depression Scale Scores, Presumptive Stressful Life Events number and score, Quality Of Life among males and females. The mean scores on HADS, PSLE events and PSLE score were calculated. The four domains of the WHO QOL BREF namely, physical domain, Psychological Domain, Social Relationship domain and Environmental domain as well as the total scores were assessed and the mean was calculated.

In our study, though we did not find any difference between males and females with respect to stressful Life Events & Hospital Anxiety Depression scores, there was significant difference in the Social relationship domain of the Quality of Life Scores, with females scoring lower than males in Social Relationship domain. In this regard, the findings of our study are similar to other previous studies.

In our study, we tried to find the various types of Psychiatric comorbidities associated with Diabetes using MINI International Neuropsychiatric Interview. We found that, among the 25 out of 52 patients who had comorbid psychiatric illness, 11 of them were suffering from Major Depression amounting to a proportion of 21.2%, 6 patients had Social Anxiety Disorder, amounting to 11.5%, 5 patients were suffering from Generalised Anxiety Disorder (9.6%) and a minority (5.8%), 3 out of 25 patients were suffering with Dysthymia.

Our study has found that depression is the most common Psychiatric comorbidity associated with Diabetes. However, the Prevalence rate of depression was 21.2%, in contrast to other studies, which have reported a higher prevalence of depression. As per our study, on assessing the Stressful Life events and comparing them between patients who had a Psychiatric comorbidity and those who did not have Psychiatric comorbidity, there was a significant difference between the two groups. On further analyzing the data and comparing the scores among the various types of Psychiatric comorbidities in our study, we found a significant difference between patients with no Psychiatric comorbidity and patients with Depression. There was no significant difference between the “No illness” group and other types of Psychiatric comorbidities. The findings suggest that patients with Psoriasis, who have comorbid Depression tend to experience more number of Stressful Life Events and consequently score high on the Presumptive Stressful Life Events Scale.

On studying the Quality of Life of the patients with Diabetes, we compared the four domains of the WHO QOL BREF scale as well as the total QOL score among patients with and without Psychiatric comorbidity. We found that, in all four domains of the WHO QOL BREF scale, there was a significant difference between the patients with and without Psychiatric comorbidity. Patients who had comorbid Psychiatric illness scored low on all four domains of the Quality of Life Scale.

Significant difference was found between the “No illness and Depression” , “No illness and Generalised Anxiety Disorder”, “No illness and Social Anxiety Disorder”. No significant difference was found in between “No illness and Dysthymia”.However, there are limited studies available, comparing the Quality of life in Diabetic patients with and without psychiatric comorbidity.

In Correlation test for the variables PSLE events, PSLE scores, HADS scores and QOL scores we found that the scores on HADS and scores on PSLES were positively correlated, which means that, the scores on HADS-A and HADS-D increase, as the number of stressful life events and PSLE scores increase.

## **CONCLUSION:**

The study findings reveal, with respect to the Hypothesis that

1. Psychiatric comorbidity is highly prevalent in patients with Diabetes mellitus.
2. Major depressive disorder is the most common Psychiatric comorbidity associated with Diabetes mellitus.
3. There is no difference with respect to Duration of Illness, in the presentation of psychiatric comorbidity.
4. The risk of developing a comorbid Psychiatric illness increases with increasing severity of Diabetes mellitus.
5. Patients with more number of Stressful life events are prone to develop Psychiatric comorbidities.